Fall 2015

QMBE 6280

Neal Maroney
University of New Orleans

Math in Financial Economics
QMBE 6280-001

Instructor	Prof. Neal Maroney
Session	Fall 2015
Time	2:30-4:45 M
Room	KH222
Office	KH 438E
Office Hours	M| 11-1:00pm, T| 12-2:00pm, W|12-2pm I will check Email. While most email will be answered promptly, you can expect an email response within 24 hours, but on weekends expect it by Monday. I prefer to meet you by appointment at the office.
Phone (W)	280-6908 -- office phone routes to cell
Phone (H)	
Email	nmaroney@uno.edu
Moodle	https://uno.mrooms3.net/login/index.php
Prerequisite	*Enrollment in PhD program or approval of graduate coordinator*
Course Materials	**TEXT** • Kevin Wainwright, and Alpha Chiang, *Fundamental Methods of Mathematical Economics*. ISBN-10: 0070109109 **SOFTWARE** • Homework assignments may be done using Mathematica. I will be using a combination of TSP, Mathematica, and EXCEL for all demonstrations.
Course/Learning Objectives	❖ The objective is to equip students with basic mathematical tools in order to understand the literature in economics and finance as well as to conduct some basic analytical research in financial economics. ❖ The course will consist of two parts: static analysis and dynamic analysis. Most of the classes will be devoted to static analysis. The following topics will be cover: Matrix algebra, comparative static, optimization and mathematical programming. Classes will consist of lectures and problem solving.
Course Procedures	❖ Students are expected to be in class on time. If a student plans to leave earlier than scheduled, he/she should notify the instructor before the class starts. Cell phones expected to be turned off during the class meeting.
Conduct *Academic Integrity*	❖ Academic integrity is fundamental to the process of learning and evaluating academic performance. Academic dishonesty will not be tolerated. Academic dishonesty includes, but is not limited to, the following: cheating, plagiarism, tampering with academic records and examinations, falsifying identity, and being

an accessory to acts of academic dishonesty. Refer to the Student Code of Conduct for further information. The Code is available online at http://www.studentaffairs.uno.edu.

Students with Disabilities

- It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities should contact the Office of Disability Services as well as their instructors to discuss their individual needs for accommodations. For more information, please go to http://www.ods.uno.edu

Attendance

- *You are expected to attend class and participate in class discussions. I reserve the option to subtract at least one letter grade for excessive absenteeism.*

Course Grade	❖ *Exam Content:* All exams will be a combination of multiple guess, true/false explain, or short answer. The final exam is comprehensive.
Exam grading and exam policy	❖ **NO MAKEUPS ARE ALLOWED.** ❖ **Final Exam is MANDATORY. Final is during exam week at the same day and time as when the course is held during the semester**

Letter grade

Letter grades are assigned with the following scale by weighting together the components below with the percentage achieved in each component:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60 –69%
- F = 59% or below

Weights

❖ Your grade depends on:

➢ Problem sets	20%
➢ class participation	5%
➢ Midterm	35%
➢ Final	40%

Course Outline

Intro

1. Basic notation
2. Set and operations

Linear Algebra

3-5. Vectors/ Matrices, Linear Equations, Quadratic Forms and Definiteness

Differentiation

6-8. Partial/Total

Optimization

9-11. univariate/multivariate

12. Constrained Optimization

13. Kuhn Tucker Conditions

14. Integration

15. First-Order Differential

16. Higher-Order Differential Equations

17. First Order Difference Equations

18. Higher-Order Difference Equations

Final is at 2:00pm December 8th, 2015